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## THE SUPERSTITION OF NECESSITY.\*

LEST my title give such offense as to prejudice unduly my contention, I may say that I use the term in the way indicated by its etymology: as a standing-still on the part of thought; a clinging to old ideas after those ideas have lost their use, and hence, like all superstitions, have become obstructions. For I shall try to show that the doctrine of necessity is a survival; that it holds over from an earlier and undeveloped period of knowledge; that as a means of getting out of and beyond that stage it had a certain value, but, having done its work, loses its significance. Halting judgment may, indeed, at one time have helped itself out of the slough of uncertainty, vagueness, and inadequacy on to ground of more solid and complete fact, by the use of necessity as a crutch; once upon the ground, the crutch makes progress slower and, preventing the full exercise of the natural means of locomotion, tends to paralyse science. The former support has become a burden, almost an intolerable one.

The beginning of wisdom in the matter of necessity is, I conceive, in realising that it is a term which has bearing or relevancy only with reference to the development of judgment, not with reference to objective things or events. I do not mean by this that necessity refers to the compelling force with which we are driven to make a given affirmation: I mean that it refers to the content of that affirmation,

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\* This article, as the title may indicate, was suggested by Mr. Peirce's article upon "The Doctrine of Necessity Examined." As, however, my thought takes finally a different turn, I have deemed it better to let it run its own course from the start, and so have not referred, except indirectly, to Mr. Peirce's argument. I hope this will not be taken as a desire to slur over my indebtedness to him.

expressing the degree of coherence between its constituent factors. When we say something or other *must* be so and so, the “must” does not indicate anything in the nature of the fact itself, but a trait in our *judgment* of that fact; it indicates the degree with which we have succeeded in making a whole out of the various elements which have to be taken into account in forming the judgment. More specifically, it indicates a half-way stage. At one extreme we have two separate judgments, which, so far as consciousness is concerned, have nothing to do with each other; and at the other extreme we have one judgment into which the contents of the two former judgments have been so thoroughly organised as to lose all semblance of separateness. Necessity, as the middle term, is the midwife which, from the dying isolation of judgments, delivers the unified judgment just coming into life—it being understood that the separateness of the original judgments is not as yet quite negated, nor the unity of the coming judgment quite attained. The judgment of necessity, in other words, is exactly and solely the transition in our knowledge from unconnected judgments to a more comprehensive synthesis. Its value is just the value of this transition; as negating the old partial and isolated judgments—in its backward look—necessity has meaning; in its forward look—with reference to the resulting completely organised subject-matter—it is itself as false as the isolated judgments which it replaces. Its value is in what it rids judgment of. When it has succeeded, its value is nil. Like any go-between, its service consists in rendering itself uncalled for.

All science can ultimately do is to report or describe, to completely state, the reality. So far as we reach this standpoint regarding any fact or group of facts, we do not say that the fact *must* be such and such, but simply that it *is* such and such. There is no necessity attaching to the fact either as whole or as parts. *Qua* whole, the fact simply is what it is; while the parts, instead of being necessitated either by one another or by the whole, are the analysed factors constituting, in their complete circuit, the whole. In stating the whole, we, as of course, state all that enters into it; if we speak of the various elements as *making* the whole, it is only in the sense of making it *up*, not of causing it. The fallacy of the ne-

cessitarian theory consists in transforming the determinate in the sense of the wholly defined, into the determined in the sense of something externally made to be what it is.

The whole, although first in the order of reality, is last in the order of knowledge. The complete statement of the whole is the goal, not the beginning of wisdom. We begin, therefore, with fragments, which are taken for wholes; and it is only by piecing together these fragments, and by the transformation of them involved in this combination, that we arrive at the real fact. There comes a stage at which the recognition of the unity begins to dawn upon us, and yet, the tradition of the many distinct wholes survives; judgment has to combine these two contradictory conceptions; it does so by the theory that the dawning unity is an effect necessarily produced by the interaction of the former wholes. Only as the consciousness of the unity grows still more is it seen that instead of a group of independent facts, held together by "necessary" ties, there is one reality, of which we have been apprehending various fragments in succession and attributing to them a spurious wholeness and independence. We learn (but only at the end) that instead of discovering and then connecting together a number of separate realities, we have been engaged in the progressive definition of one fact.

There are certain points upon which there is now *practical* agreement among all schools. What one school has got at by a logical analysis of science, another school has arrived at by the road of a psychological analysis of experience. What one school calls the unity of thought and reality, another school calls the relativity of knowledge. The metaphysical interpretation further given to these respective statements may be quite different, but, so far as they go, they come to the same thing: that objects, *as known*, are not independent of the process of knowing, but are the content of our judgments. One school, indeed, may conceive of judgment as a mere associative or habitual grouping of sensations, the other as the correlative diversification and synthesis of the self; but the practical outcome, that the "object" (anyway as known) is a form of judgment, is the same. This point being held in common, both schools must agree that *the progress of judgment is equivalent to a change in*

*the value of objects*—that objects as they are for us, as known, change with the development of our judgments. If this be so, truth, however it be metaphysically defined, must attach to late rather than to early judgments.

I am fortunate in being able to quote from authors, who may be taken as typical of the two schools. Says Professor Caird in his article upon "Metaphysic," (lately reprinted, "Essays in Philosophy and Literature,"):

"Our first consciousness of things is not an immovable foundation upon which science may build, but rather a hypothetical and self-contradictory starting-point of investigation, which becomes changed and transformed as we advance." ("Essays," Vol. II, p. 398.)

On the other hand, Mr. Venn writes (in the first chapter of his "Empirical Logic"):

"Select what object we please—the most apparently simple in itself, and the most definitely parted off from others that we can discover—yet we shall find ourselves constrained to admit that a considerable mental process has been passed through before that object could be recognised as being an object, that is, as possessing some degree of unity and as requiring to be distinguished from other such unities."

He goes on to illustrate by such an apparently fixed and given object as the sun, pointing out how its unity as a persistent thing involves a continued synthesis of elements very diverse in time and space, and an analysis, a selection, from other elements in very close physical juxtaposition. He goes on to raise the question whether a dog, for example, may be said to "see" a rainbow at all, because of the complex analysis and synthesis involved in such an object. The "mental whole" (to use Mr. Venn's words, the "ideal unity" as others might term it) is so extensive and intricate that

"One might almost as reasonably expect the dog to 'see' the progress of democracy in the place where he lives, of which course of events the ultimate sensible constituents are accessible to his observation precisely as they are to ours."

As Mr. Venn is not discussing just the same point which I have raised, he does not refer to the partial and tentative character of our first judgments—our first objects. It is clear enough, however, that there will be all degrees between total failure to analyse and com-

bine (as, say, in the case of the dog and rainbow) and fairly adequate grouping. The difference between the savage whose synthesis is so limited in scope that he sets up a new sun every day and the scientific man whose object is a unity comprehending differences through thousands of years of time and interactions going on through millions of miles of space is a case in point. The distinction between the respective objects is not simply a superimposition of new qualities upon an old object, that old object remaining the same; it is not getting new objects; it is a continual qualitative reconstruction of the object itself. This fact, which is the matter under consideration, is well stated by Mr. Venn, when he goes on to say:

“The act of predication, in its two-fold aspect of affirmation and denial, really is a process by which we are not only enabled to add to our information *about* objects, but is also the process by the continued performance of which the objects had been originally acquired, or rather produced” (italics are mine).

This statement cannot be admitted at all without recognising that the first judgments do not make the object once for all, but that the continued process of judging is a continued process of “producing” the object.

Of course the confused and hypothetical character of our first objects does not force itself upon us when we are still engaged in constructing them. On the contrary, it is only when the original subject-matter has been overloaded with various and opposing predicates that we think of doubting the correctness of our first judgments, of putting our first objects under suspicion. At the start, these objects assert themselves as the baldest and solidest of hard facts. The dogmatic and naïve quality of the original judgment is in exact proportion to its crudeness and inadequacy. The objects which are the content of these judgments thus come to be identified with reality *par excellence*; they are *facts*, however doubtful everything else. They hang on obstinately. New judgments, instead of being regarded as better definitions of the actual fact and hence as displacing the prior object, are tacked on to the old as best they may be. Unless the contradiction is too flagrant, the new predicates are set side by side with the old as simply additional information; they do not react into the former qualities. If the contradiction is

too obvious to be overlooked the new predicate is used, if possible, to constitute another object, independent of the former. So the savage, having to deal with the apparently incompatible predicates of light and darkness, makes two objects ; two suns, for two successive days. Once the Ptolemaic conception is well rooted, cycles and epicycles, almost without end, are superadded, rather than reconstruct the original object. Here, then, is our starting point : when qualities arise so incompatible with the object already formed that they cannot be referred to that object, it is easier to form a new object on their basis than it is to doubt the correctness of the old, involving as that does the surrender of the *object* (the fact, seemingly) and the formation of another object.

It is easier, I say, for there is no doubt that the reluctance of the mind to give up an object once made lies deep in its economies. I shall have occasion hereafter to point out the teleological character of the notions of necessity and chance, but I wish here to call attention to the fact that the forming of a number of distinct objects has its origin in practical needs of our nature. The analysis and synthesis which is first made is that of most practical importance ; what is abstracted from the complex net-work of reality is some net outcome, some result which is of value for life. As Venn says :

“What the savage mostly wants to do is to produce something or to avert something, not to account for a thing which has already happened. What interests him is to know how to kill somebody, not to know how somebody has been killed.” (P. 62 of “Empirical Logic.”)

And again :

“What not only the savage, but also the practical man mostly wants, is a *general* result, say the death of his enemy. It does not matter whether the symptoms, i. e., the qualifying circumstances, are those attendant on poison, or a blow from a club, or on incantation, provided the death is brought about. But they do desire *certainty* in respect of this general result.” (P. 64.)

Now it is this “general result,” the net outcome for practical purposes, which is *the fact*, *the object* at first. Anything else is useless subtlety. That the man is dead—that is the fact ; anything further is at most external circumstances which happen to accompany the fact. That the death is only a bare fraction of a fact ; that

the attendant "circumstances" are as much constituent factors of the real fact as the mere "death" itself (probably more so from the scientific point of view)—all this is foreign to conception. We pluck the fruit, and that fruit is the fact. Only when practical experience forces upon us the recognition that we cannot get the fruit without heeding certain other "conditions" do we consent to return upon our assumed object, put it under suspicion and question whether it is really what we took it to be. It is, we may presume, the savage who in order to get his living, has to regulate his conduct for long periods, through changes of seasons, in some continuous mode, who first makes the synthesis of one sun going through a recurring cycle of changes—the year.

As time goes on, the series of independent and isolated objects passes through a gradual change. Just as the recognition of incompatible qualities has led to setting up of separate things, so the growing recognition of similar qualities in these disparate objects begins to pull them together again. Some relation between the two objects is perceived; it is seen that neither object is just what it is in its isolation, but owes some of its meaning to the other objects. While in reality, (as I hope later to point out,) this "relationship" and mutual dependence means membership in a common whole, contribution to one and the same activity, a midway stage intervenes before this one fact, including as parts of itself the hitherto separate objects, comes to consciousness. The tradition of isolation is too strong to give way at the first suggestion of community. This passage-way from isolation to unity, denying the former but not admitting the latter, is necessity or determinism. The wall of partition between the two separate "objects" cannot be broken at one attack; they have to be worn away by the attrition arising from their slow movement into one another. It is the "necessary" influence which one exerts upon the other that finally rubs away the separateness and leaves them revealed as elements of one unified whole. This done, the determining influence has gone too.

The process may be symbolised as follows:  $M$  is the object, the original synthesis of the elements seen to be of practical importance;  $a$ ,  $b$ ,  $c$ , etc., to  $n$  are predicates of constantly growing incompatibil-



ity. When the quality  $i$  is discovered, it is so manifestly incompatible with  $a$  that all attempt to refer it to the same subject  $M$  is resisted. Two alternatives are now logically open. The subject-matter  $M$ , as the synthesis of the qualities  $a—h$ , may be taken up; it may be asked whether the object is really  $M$  with these qualities; whether it is not rather  $\Sigma$ , having instead of the predicates  $a, b$ , etc., the qualities  $\rho\alpha, \rho\beta$ , with which the new quality  $i$  is quite compatible. But this process goes against the practical grain of our knowledge; it means not only that we do not know what we thought we knew; it means that we did not *do* what we thought we did. Such unsettling of action is hardly to be borne. It is easier to erect a new object  $N$ , to which the more incompatible predicates are referred. Finally, it is discovered that both  $M$  and  $N$  have the same predicates  $r$  and  $s$ ; that in virtue of this community of qualities there is a certain like element even in the qualities previously considered disparate. This mutual attraction continues until it becomes so marked a feature of the case that there is no alternative but to suppose that the  $r$  and  $s$  of one produces these qualities in the other, and thereby influences all the qualities of the other. This drawing together continues until we have the one reconstructed object  $\Sigma$ , with the traits  $\rho\alpha, \rho\beta r$ , etc. It is found that there is one somewhat comprehensive synthesis which includes within itself the several separate objects so far produced; and it is found that this inclusion in the larger whole reacts into the meaning of the several constituting parts—as parts of one whole, they lose traits which they seemed to possess in their isolation, and gain new traits, because of their membership in the same whole.

We have now to consider, more in detail, how the intermediate idea of necessity grows up and how it gives away upon the discovery of the one inclusive whole. Let us continue the illustration of the killing. The “general result,” the death of the hated enemy, is at first the fact; all else is mere accidental circumstance. Indeed, the other circumstances at first are hardly that; they do not attract attention, having no importance. Not only the savage, but also the common-sense man of to-day, I conceive, would say that any attempt to extend the definition of the “fact” beyond the mere

occurrence of the death is metaphysical refinement ; that the *fact* is the killing, the death, and that that "fact" remains quite the same, however it is brought about. What has been done, in other words, is to abstract part of the real fact, part of *this* death, and set up the trait or universal thus abstracted as itself *fact*, and not only as fact, but as *the* fact, *par excellence*, with reference to which all the factors which constitute the reality, the concrete fact, of *this* death, are circumstantial and "accidental."\*

A fragment of the whole reality, of the actual fact individualised and specified with all kind of minute detail, having been thus hypos-tatised into an object, the idea of necessity is in fair way to arise. These deaths in general do not occur. Although the mere death of the man, his removal from the face of the earth, is the *fact*, none the less all *actual* deaths have a certain amount of detail in them. The savage has to hit his enemy with a club or spear, or perform a magic incantation, before he can attain that all-important end of getting rid of him. Moreover, a man with a coat of armor on will not die just the same way as the man who is defenseless. These circumstances have to be taken into account. Now, if the "fact" had not been so rigidly identified with the bare practical outcome, the removal of the hated one, a coherent interpretation of the need for these further incidents would be open. It could be admitted that the original death was a highly complex affair, involving a synthesis of a very large number of different factors ; furthermore, the new

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\* The reason of this abstraction is in practical nature, as already indicated. For all the savage *cares* about it, the death in general, *is* the real fact. It is all that interests him. It is hardly worth while to attempt to persuade the savage ; indeed, if he were not only a savage, but also a philosopher, he might boldly challenge the objector to present *any* definition of object which should not refer objectivity to man's practical activity ; although he might, as a shrewd savage, admit that some one activity (or self) to which the object is referred has more content than another. In this case, I, for one, should not care about entering the lists against the savage. But when the common-sense philosopher, who resists all attempts to reconstruct the original object on the ground that a fact is a fact and all beyond that is meta-physics, is also a case-hardened nominalist (as he generally is), it is time to protest. It might be true that the real object is always relative to the value of some action ; but to erect this pure universal into the object, and then pride one's self on enlightenment in rejecting the "scholastic figment" of the reality of universals is a little too much.

cases of murder could be employed to reconstruct the original analysis-synthesis ; to eliminate supposed factors which were not relevant, and to show the presence of factors at first not suspected. In other words, the real fact would be under constant process of definition, of "production." But the stiff-necked identification of the fragment, which happened to have practical importance with the real object, effectually prevents any such reaction and reconstruction. What is to be done, however, with these conditions of spear, of stone, of armor, which so obviously have something *to do* with the real fact, although, as it would seem, they are not the fact ? They are considered as circumstances, *accidental*, so far as death in general is concerned ; *necessary*, so far as *this* death is concerned. That is, wanting simply to get the net result of the removal of my enemy, so that he will no longer blight the fair face of nature, it is accidental how I do it ; but having, after all, to kill a man of certain characteristics and surroundings in life, having to choose time and place, etc., it becomes necessary, *if* I am to succeed, that I kill him in a certain way, say, with poison, or a dynamite bomb. Thus we get our concrete, individual fact again.

Consider, then, that tortuous path from reality to reality, *via* a circuit of unreality, which calls the thought of necessity into existence. We first mutilate the actual fact by selecting some portion that appeals to our needs ; we falsify, by erecting this fragment into the whole fact. Having the rest of the fact thus left on our hands for disposal, when we have no need of the concrete fact we consider it accidental, merely circumstantial ; but we consider it necessary whenever we have occasion to descend from the outcome which we have abstracted back to the real fact, in all its individuality. Necessity is a device by which we both conceal from ourselves the unreal character of what we have called real, and also get rid of the practical evil consequences of hypostatizing a fragment into an independent whole.

If the purely teleological character of necessity is not yet evident, I think the following considerations will serve to bring it out. The practical value, the fruit from the tree, we pick out and set up for the entire fact so far as our past action is concerned. But so far

as our *future* action is concerned, this value is a result *to be* reached ; it is an end to be attained. Other factors, in reality all the time bound up in the one concrete fact or individual whole, have now to be brought in as means to get this end. Although after our desire has been met they have been eliminated as accidental, as irrelevant, yet when the experience is again desired their integral membership in the real fact has to be recognised. This is done under the guise of considering them as means which are necessary to bring about the end. Thus the idea of the circumstances as external to the "fact" is retained, while we get all the practical benefit of their being not external but elements of one and the same whole. Contingent and necessary are thus the correlative aspects of one and the same fact ; conditions are accidental so far as we have abstracted a fragment and set it up as the whole ; they are necessary the moment it is required to pass from this abstraction back to the concrete fact. Both are teleological in character—contingency referring to the separation of means from end, due to the fact that the end having been already reached the means have lost their value for us ; necessity being the reference of means to an end *which has still to be got*. Necessary means *needed* ; contingency means no longer required—because already enjoyed.

Note that the necessity of the means has reference to an end still to be attained, and in so far itself hypothetical or contingent, while the contingent circumstances are no longer needed precisely because they have resulted in a definite outcome (which, accordingly, is now a fact, and, in that sense, necessary) and we begin to see how completely necessity and chance are bound up with each other.

Their correlation may thus be stated : *If* we are to reach an end we *must* take certain means ; while so far as we want an undefined end, an end in general, conditions which accompany it are mere accidents. Whichever way the relationship be stated, the underlying truth is that we are dealing with only partial phases of fact, which, having been unduly separated from each other through their erection into distinct wholes, have now to be brought back into their real unity.

In the first place, then, *if* I am to reach an end, certain means

*must* be used. Here the end is obviously postulated ; save as it is begged (presupposed), the necessity of the means has no sense. If, when starving, I am to live I must steal a dinner, but, having stolen, the logical but unsympathetic judge may question the relevancy (that is, the necessity) of my end, and thus cut the ground out from under the necessity of my means. My end requires *its* justification, the establishing of its validity, before the necessity of the means is anything more than hypothetical. The proximate end must be referred to a more ultimate and inclusive end to get any solid ground. Here we have our choice : we may deny the existence of any organic whole in life and keep chasing in a never-ending series, the *progressus ad infinitum*, after an end valid in itself. In this case we never get beyond a hypothetical necessity—something is necessary *if* we are to have something else, the necessity being relative to the implied doubt. Or, being convinced that life is a whole and not a series merely, we may say there is one comprehensive end which gives its own validity to the lesser ends in so far as they constitute it. While, on the other alternative, we reach only a hypothetical necessity, on this we reach none at all. The comprehensive end is no end at all in the sense of something by itself to be reached by means external to it. Any such end would be simply one in the infinite series and would be itself hypothetical. Whenever minor ends cease to be in turn means to further ends it is because they have become parts, constituent elements, of the higher end and thus ceased to be steps towards an end and beyond and outside of themselves. Given a final (i. e., inclusive) end, eating and drinking, study and gossip, play and business, cease to be means *towards* an end and become its concrete definition, its analytic content. The minor activities state the supreme activity in its specific factors.

Our dilemma is the choice between an end which itself has no existence save upon presupposition of another end, (is contingent,) and an end which as an end in itself simply *is*.

The externality of means to end is merely a symptom of lack of specification or concreteness in the end itself. *If* I am going to invent some improvement in a type-writer, the necessity of going through certain preliminary steps is exactly proportionate to the in-

definiteness of my conception of what the improvement is to be ; when the end is realised, the operations which enter into the realisation cease to be means necessary to an end and become the specific *content* of that end. The improvement is a *fact*, having such and such elements defining it. If I simply want, in general, to get my mail I *must* take this path (there being but one road) ; but if my end is not thus general, if it is individualised with concrete filling, the walk to the office may become a part of the end, a part of the actual fact. In so far, of course, it loses all aspect of necessitation. It simply *is*. And in general, so far as my end is vague, or abstract, so far as it is not specified as to its details, so far the filling up of its empty schema to give it particularity (and thus make it fact) appears as a means necessary to reach an end outside itself. The growth in concreteness of the end itself is transformed into ways of effecting an end already presupposed. Or, to state it in yet one other way, determination in the sense of definition in consciousness is hypostatized into determination in the sense of a physical making.

The point may come out more clearly if we consider it with the emphasis on chance instead of upon necessity. The usual statement that chance is relative to ignorance seems to me to convey the truth though not in the sense generally intended—viz., that if we knew more about the occurrence we should see it necessitated by its conditions. Chance is relative to ignorance in the sense rather that it refers to an indefiniteness in our conception of what we are doing. In our consciousness of our end (our acts) we are always making impossible abstractions ; we break off certain phases of the act which are of chief interest to us, without any regard to whether the concrete conditions of action—that is, the deed in its whole definition—permits any such division. Then, when in our actual doing the circumstances to which we have not attended thrust themselves into consciousness—when, that is to say, the act appears in more of its own specific nature—we dispose of those events, foreign to our conscious purpose, as accidental ; we did not want them or intend them—what more proof of their accidental character is needed ? The falling of a stone upon a man's head as he walks under a window is “chance,” for it has nothing to do with what the man proposed to

do, it is no part of his conception of that walk. To an enemy who takes that means of killing him, it is anything but an accident, being involved in *his* conscious purpose. It is "chance" when we throw a two and a six; for the concreteness of the act falls outside of the content of our intention. We intended *a* throw, some throw, and in so far the result is not accidental, but this special result, being irrelevant to our conception of what we were to do, in so far is contingent. The vagueness or lack of determinateness in our end, the irrelevancy of actual end to conscious intent, chance, are all names for the same thing. And if I am asked whether a gambler who has a hundred dollars upon the outcome does not *intend* to throw double sixes, I reply that he has no such intention—unless the dice are loaded. He may *hope* to make that throw, but he cannot intend it save as he can define that act—tell how to do it, tell, that is, just *what* the act is. Or, once more, if I intend to get my mail and there are four paths open to me it is chance which I take, just in proportion to the abstractness of my end. If I have not defined it beyond the mere "general result" of getting mail, anything else is extraneous and in so far contingent. If the end is individualised to the extent, say, of getting the mail in the shortest possible time, or with the maximum of pleasant surroundings, or with the maximum of healthy exercise, the indifferency of the "means," and with it their contingency, disappears. This or that path is no longer a mere means which *may* be taken to get a result foreign to its own value; the path is an intrinsic part of the end.

In so far as a man presents to himself an end in general, he sets up an abstraction so far lacking in detail as (taken *per se*) to exclude the possibility of realisation. In order to exist as concrete or individual (and of course, nothing can exist except as individual or concrete) it must be defined or particularised. But so far as consciousness is concerned the original vague end is *the* reality; it is all that the man cares about and hence constitutes his act. The further particularisation of the end, therefore, instead of appearing as what it really is, viz., the discovery of the actual reality, presents itself as something outside that end. This externality to the end previously realised in consciousness is, taken as mere externality, contingency,

or accident ; taken as none the less so bound up with the desired end that it must be gone through before reaching that end, it is necessary. Chance, in other words, stands for the irrelevancy as the matter at first presents itself to consciousness ; necessity is the required, but partial, negation of this irrelevancy. Let it be complete, instead of partial, and we have the one real activity defined throughout. With reference to this reality, conditions are neither accidental nor necessary, but simply constituting elements—they neither may be nor must be, but just are. What is irrelevant is now not simply indifferent ; it is excluded, eliminated. What is relevant is no longer something required in order to get a result beyond itself ; it is incorporated into the result, it is integral.

It now remains to connect the two parts of our discussion, the logical and the practical consideration of necessity, and show that, as suggested, logical necessity rests upon teleological—that, indeed, it is the teleological read backwards. The logical process of discovering and stating the reality of some event simply reverses the process which the mind goes through in setting up and realising an end. Instead of the killing of an enemy as something to be accomplished, we have the fact of a murder to be accounted for. Just as on the practical side, the end, as it first arises in consciousness, is an end in general and thus contrasts with the concrete end which is individualised ; so the fact, as at first realised in consciousness, is a *bare* fact, and thus contrasts with the actual event with its complete particularisation. The actual fact, the murder as it really took place, is one thing ; the fact as it stands in consciousness, the phases of the actual event which are picked out and put together, is another thing. The fact of knowledge, it is safe to say, is no *fact* at all ; that is, if there had been in reality no more particularisation, no more of detail, than there is consciousness, the murder would never have happened. But just as, practically, we take the end in general to be the real thing, (since it is the only thing of any direct interest,) so in knowledge we take the bare fact as abstracted from the actual whole, as *the* fact. Just as the end of the savage is merely to kill his enemy, so the “fact” is merely the dead body with the weapon sticking in it. The fact, as it stands in con-



sciousness, is indeterminate and partial, but, since it is in consciousness by itself, it is taken as a whole and as the certain thing. But as the abstractness of the "end in general" is confessed in the fact that means are required in order to make it real—to give it existence—so the unreal character of the "fact" is revealed in the statement that the causes which produced it are unknown and have to be discovered. The bare fact thus becomes a result to be accounted for: in this conception the two sides are combined; the "fact" is at once given a certain reality of its own while at the same time the lack of concreteness is recognised in the reference to external causes.

The gradual introduction of further factors, under the guise of causes accounting for the effect, defines the original vague "fact," until, at last, when it is accounted for, we have before us the one and only concrete reality. This done, we no longer have an effect to be accounted for, and causes which produce it, but one fact whose statement or description is such and such. But intermediate between the isolation and the integration is the stage when necessity appears. We have advanced, we will suppose, from the bare fact of the murder to the discovery of a large amount of "circumstantial" evidence regarding that fact. We hear of a man who had a quarrel with the deceased; he cannot account for himself at the time when the murder *must* have been committed; he is found to have had a weapon like that with which the murder *must* have been committed. Finally we conclude he *must* have been the murderer. What do these "musts" (the "must" of the time, weapon, and murderer) mean? Are they not obviously the gradual filling-in of the previously empty judgment, through bringing things at first unconnected into relation with each other? The existence of the man M. N. is wholly isolated from the "fact" of the murder till it is learned that he had a grudge against the murdered man; this third fact, also distinct *per se*, brought into connection with the others (the "fact" of the murder and of the existence of M. N.) compels them to move together; the result is at first the possibility, later, as the points of connection get more and more marked and numerous, the "necessity," that M. N. is the murderer. Further, it is clear that this "must" marks not a greater certainty or actuality

than a mere "is" would indicate, but rather a doubt, a surmise or guess gradually gaining in certainty. When the fact is really made out to our satisfaction, we drop the "must" and fall back on the simple *is*. Only so long as there is room for doubt, and thus for argument do we state that the time and weapon must have been such and such. So when we finally conclude that the murderer must have been M. N., it means that we have woven a large number of facts, previously discrete, into such a state of inter-relationship that we do not see how to avoid denying their discreteness and incorporating them all into one concrete whole, or individual fact. That we still say "must" shows, however, that we have not quite succeeded in overcoming the partial and indefinite character of the original "fact." Had we succeeded in getting the whole fact before us the judgment would take this form: The murder *is* a fact of such and such definite nature, having as its content such and such precise elements. In this comprehensive whole all distinction of effect to be accounted for and causes which produce clean disappears. The idea of necessity, in a word, comes in only while we are still engaged in correcting our original error, but have not surrendered it root and branch; this error being that the fragment of reality which we grasp is concrete enough to warrant the appellation "fact."

A great deal of attention has been directed to the category of cause and effect. One striking feature of the ordinary consideration is, that it takes for granted the matter most needing investigation and aims the inquiry at the dependent member of the firm. The effect seems to be so clearly *there*, while the cause is so obviously something to be searched for that the category of effect is assumed, and it is supposed that only the idea of causation is in need of examination. And yet this abstraction of certain phases of fact, the erection of the parts thus abstracted into distinct entities, which, though distinct, are still dependent in their mode of existence, is precisely the point needing examination. It is but another instance of the supreme importance of our practical interests. The effect is the end, the practical outcome, which interests us; the search for causes is but the search for the means which would pro-

duce the result. We call it "means and end" when we set up a result to be reached in the future and set ourselves upon finding the causes which put the desired end in our hands; we call it "cause and effect" when the "result" is given, and the search for means is a regressive one. In either case the separation of one side from the other, of cause from effect, of means from end, has the same origin: a partial and vague idea of the whole fact, together with the habit of taking this part (because of its superior practical importance) for a whole, for a fact.

I hope now to have made good my original thesis: that the idea of necessity marks a certain stage in the development of judgment; that it refers to a residuum, in our judgments and thus in our objects, of indeterminateness or vagueness, which it replaces without wholly negating; that it is thus relative to "chance" or contingency; that its value consists wholly in the impulse given judgment towards the *is*, or the concrete reality defined throughout. The analysis has been long; the reader may have found it not only tedious, but seemingly superfluous, since, as he may be saying to himself, no one nowadays regards necessity as anything but a name for fixed uniformities in nature, and of this view of the case nothing has been said. I hope, however, that when we come to a consideration of necessity as equivalent to uniformity, it will be found that the course of this discussion has not been irrelevant, but the sure basis for going further.

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